

Level 3

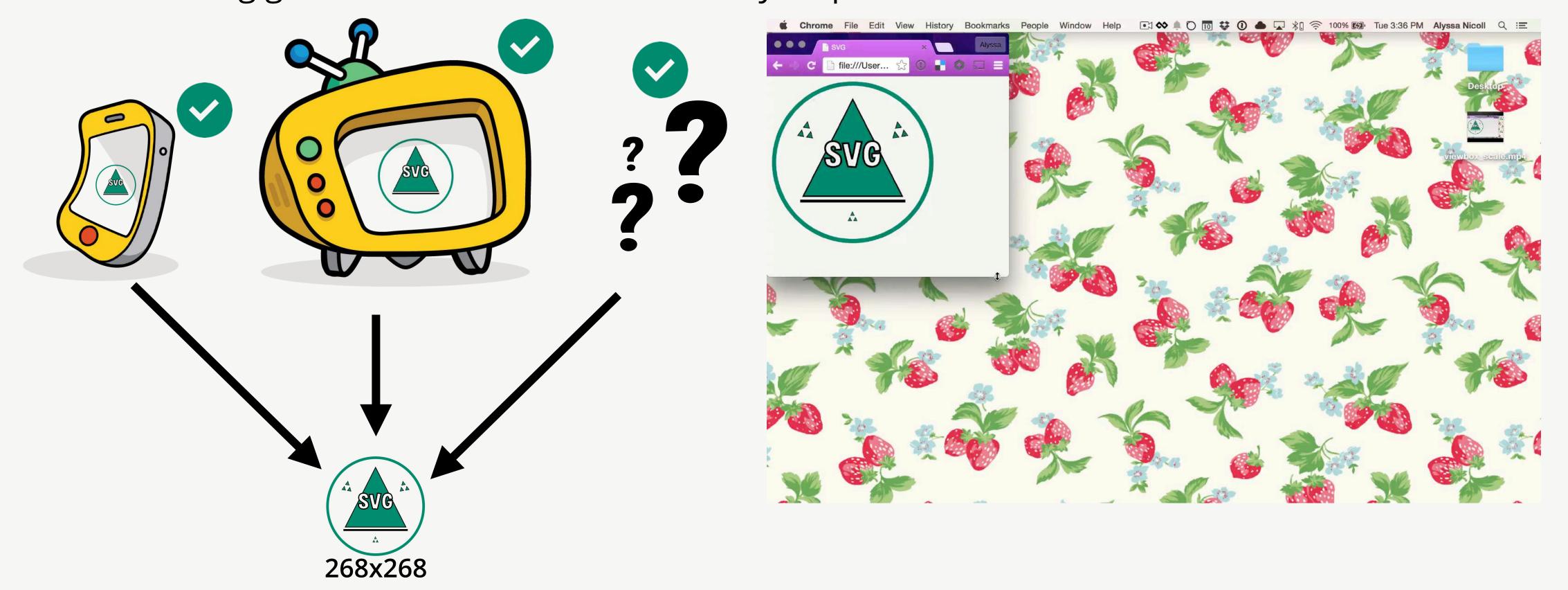
Group de Loop

Section 3 - Responsively



Truly Scalable Graphics?

We are looking good, but our SVG is still not very responsive based on the screen size.





Wouldn't it be better if we could set our SVG's width to a percentage of the screen width?!



Viewport Is Our Base Coordinate System

SVG height and width is called our viewport.

```
index.html
<!DOCTYPE html>
<html>
                                                           120
  <head>
                                                           160
    <meta charset="utf-8">
    <title>SVG</title>
                                                           200
  </head>
                                                           240
  <body>
           height="268"
     <svg
                                                           280
           width="268"
                                                           320
           version="1.1"
           xmlns="http://www.w3.org/2000/svg">
     </svg>
   </body>
 </html>
```

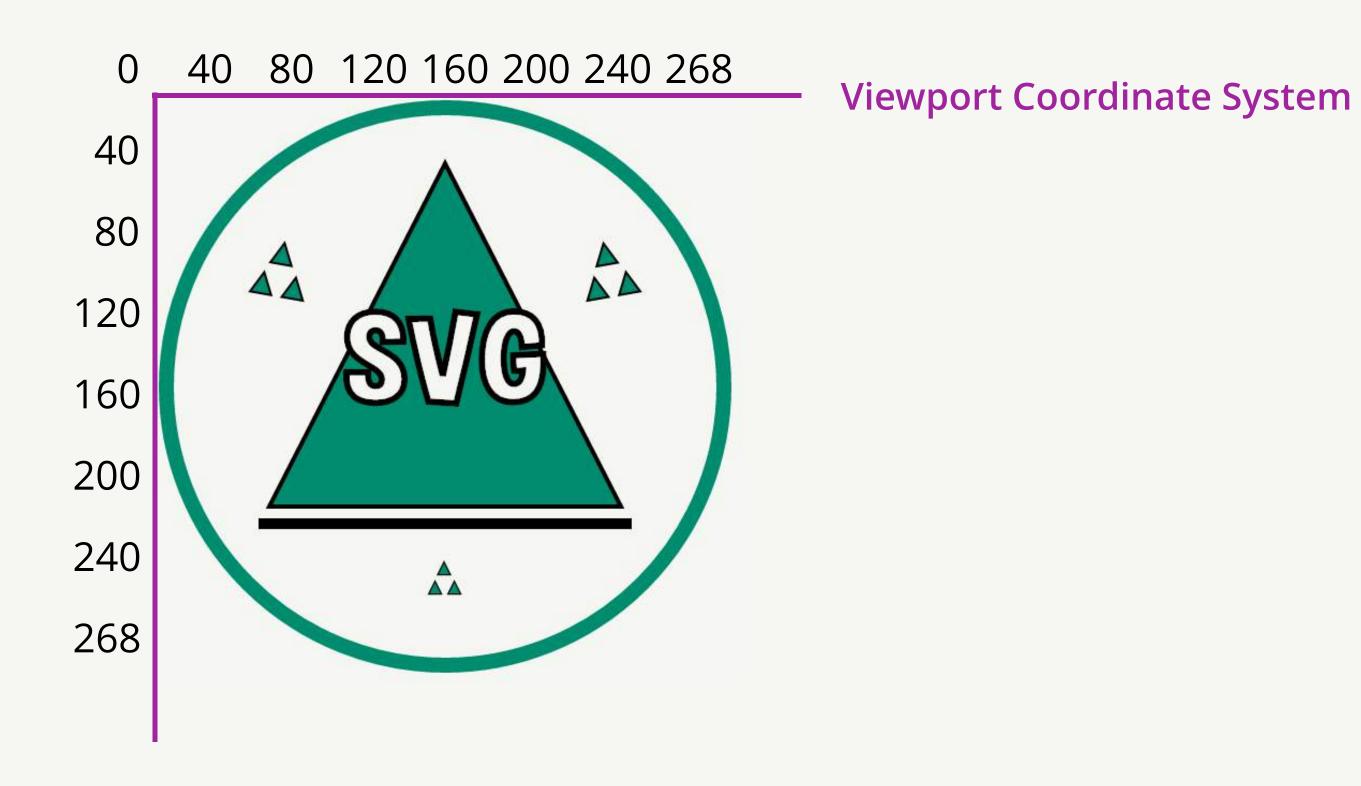
```
    40 80 120 160 200 240 280 320
    40 Viewport Coordinate System
    (Base Coordinate System)
```

As we saw with groups, it is possible to have nested coordinate systems inside one SVG.



Using a ViewBox

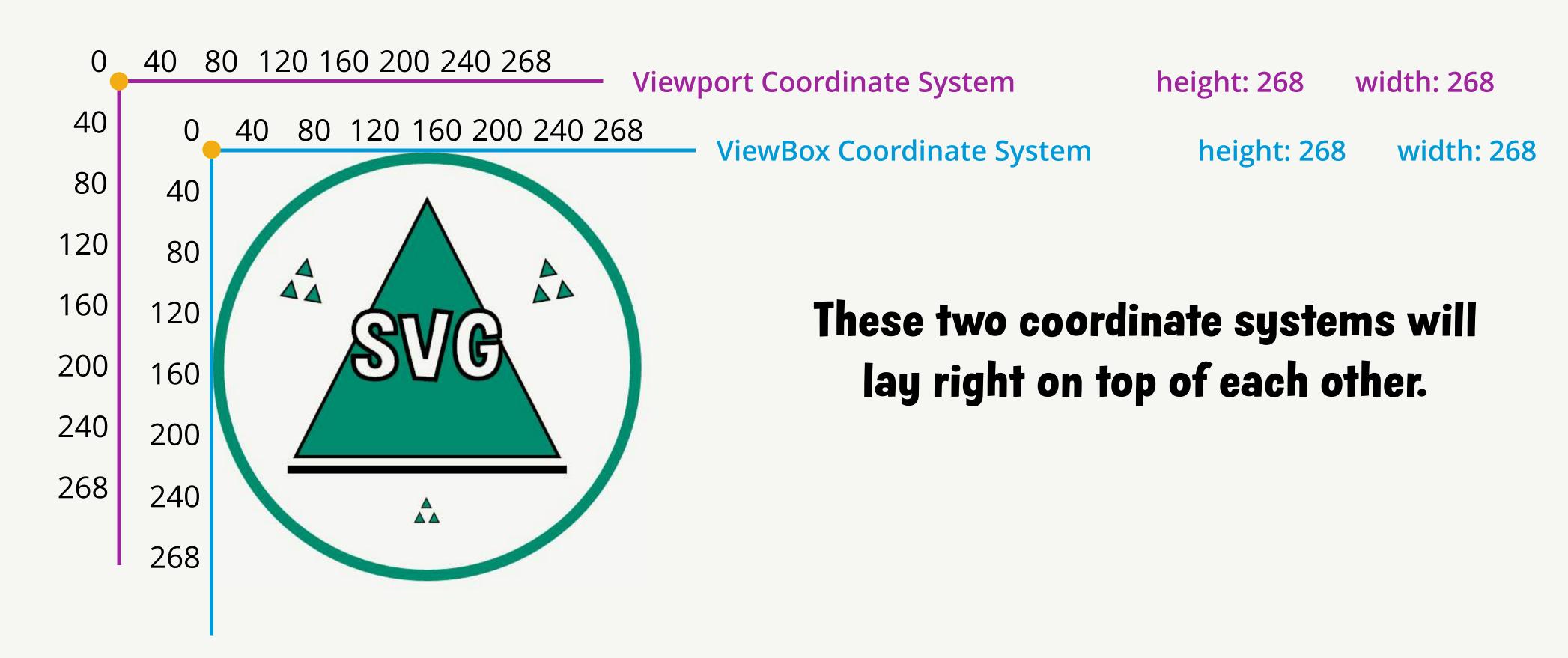
1. Copy our viewport values into a nested coordinate system called the viewBox.



height: 268 width: 268

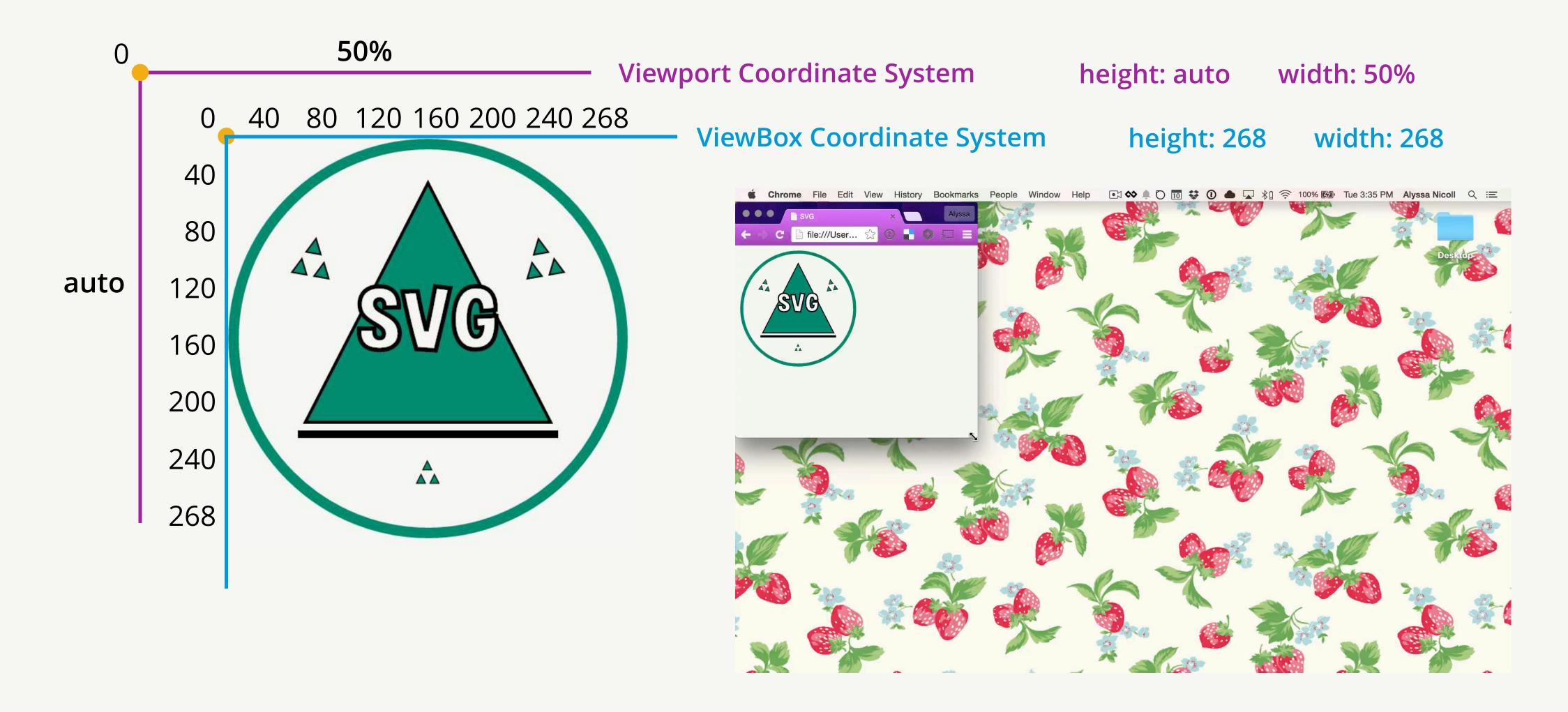
Using a ViewBox

1. Copy our viewport values into a nested coordinate system called the viewBox.



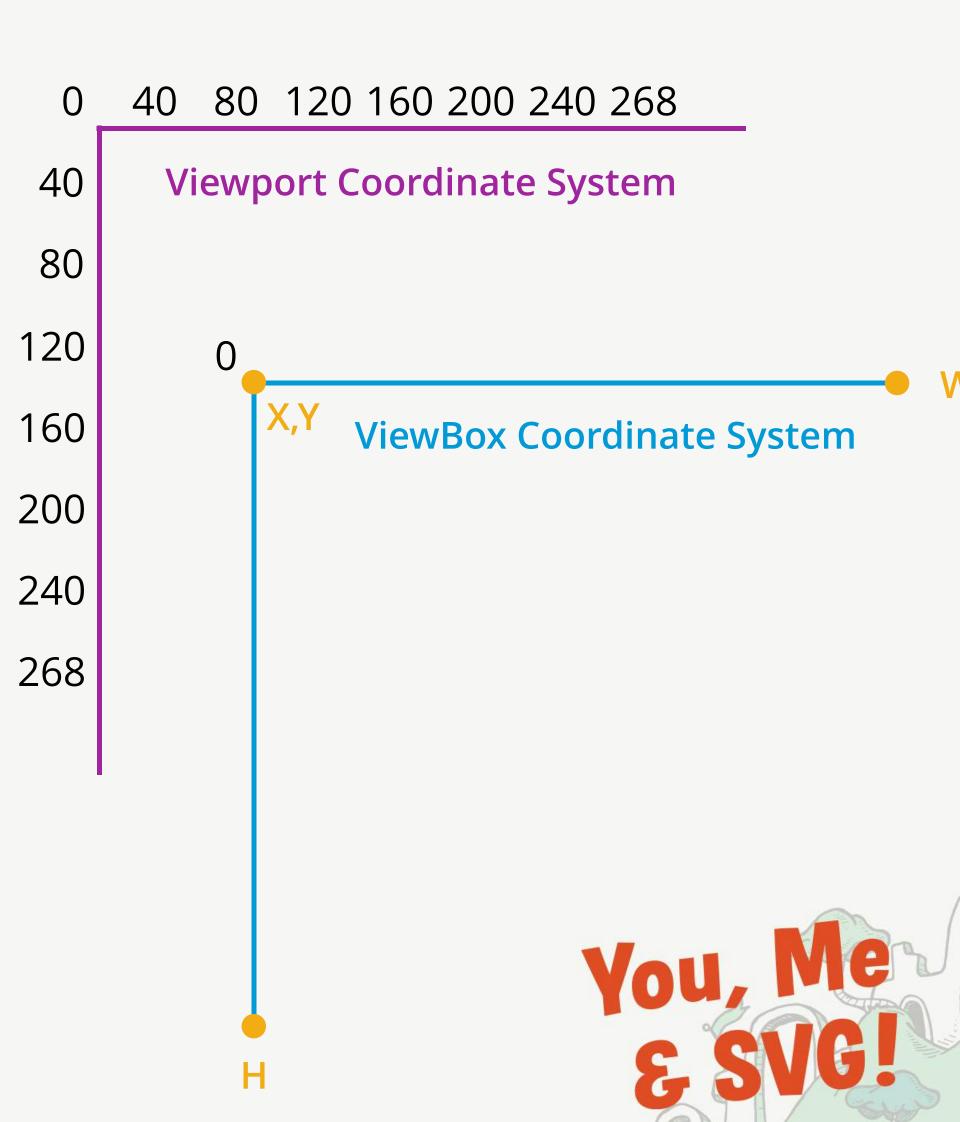
Using Responsive Values

- 1. Copy our viewport values into a nested coordinate system called the viewBox.
- 2. Give our viewport responsive values for height and width.



Moving Viewport Values to ViewBox

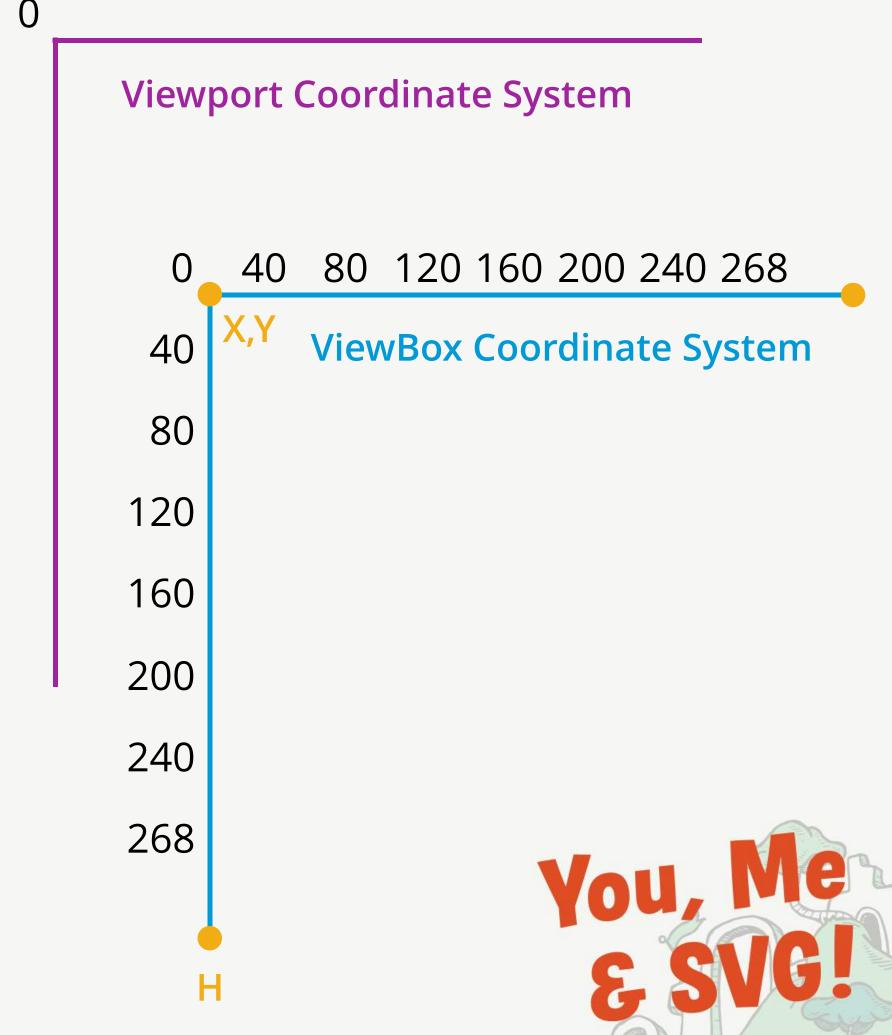
```
index.html
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>SVG</title>
  </head>
  <body>
           height="268"
     <svg
           width="268"
           version="1.1"
           xmlns="http://www.w3.org/2000/svg">
           viewBox="
        • • •
     </svg>
   </body>
</html>
```



Moving Viewport Values to ViewBox

```
index.html
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>SVG</title>
  </head>
  <body>
     <svg version="1.1"</pre>
           xmlns="http://www.w3.org/2000/svg">
           viewBox="
                         268 268 ">
     </svg>
  </body>
                           Width and Height
</html>
```

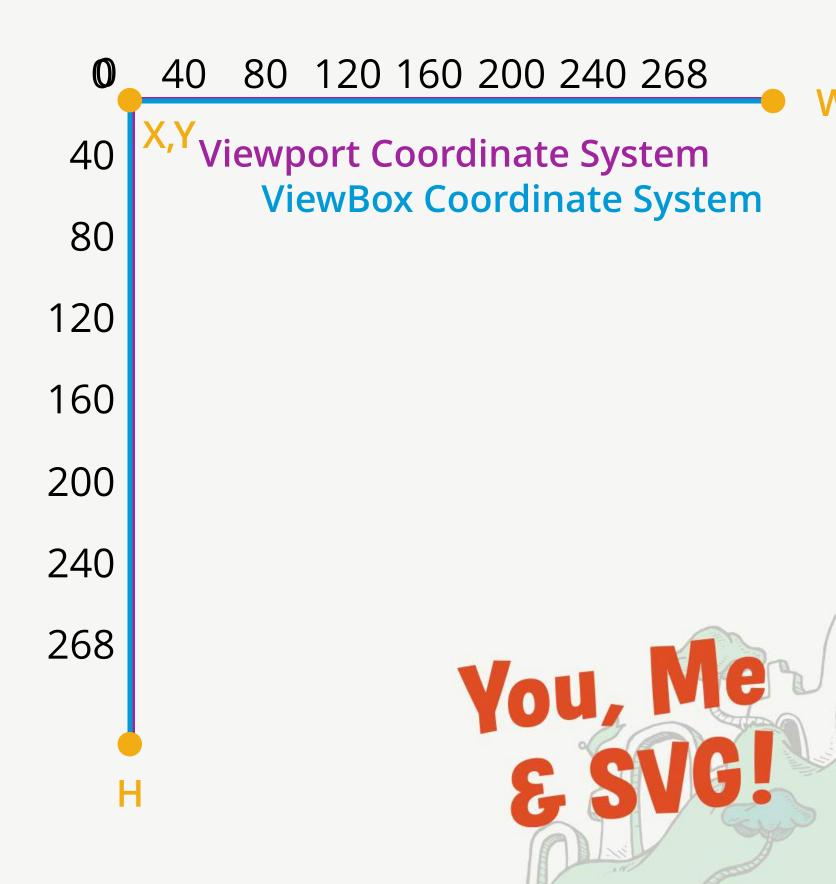
We will set the static size of our asset(268x268) on the viewBox.



Same Origin for Both Coordinate Systems

```
index.html
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>SVG</title>
  </head>
  <body>
     <svg version="1.1"</pre>
           xmlns="http://www.w3.org/2000/svg">
           viewBox="0 0 268 268">
    </svg>
  </body>
          ViewBox Origin X,Y
                            Width & Height
```

For this example, our coordinate systems will have the same origin: 0,0.



Giving Viewport Responsive Values

Now all we need to do is set our viewport height and width to responsive sizes. You need to do this in the CSS:

```
index.html
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>SVG</title>
  </head>
  <body>
     <svg version="1.1"</pre>
           xmlns="http://www.w3.org/2000/svg">
           viewBox="0 0 268 268 ">
    </svg>
   </body>
 </html>
```

```
style.css

svg {
  height: auto;
  width: 50%;
}
```

Responsive Scalable Graphics — Wow!

